

Experience Guidance

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I. Introduction

Experience as a Water Treatment or Distribution operator is a requirement for operator certification above the grade 2 level. The amount of experience required increases with the level of certification and is listed in the regulations under Section 63800 for water treatment and Section 63805 for distribution. Experience substitutions are available for some of the experience requirements but an operator cannot receive certification beyond the T3 and D2 levels without some hands-on experience as an operator.

There are two kinds of experience requirements listed in the regulations, specific experience and general experience.

Specific Experience is earned while being certified at a specific grade working at a specific classification of treatment facility or distribution system. For example, to qualify for T4 certification the operator must have one year of experience working as a Chief or Shift operator, while holding a valid T3 certificate, at a T3 facility or higher. Experience gained at a lower grade or classification will not meet this requirement.

General Experience is earned while working at any classification of water treatment facility or distribution system. The operator must be certified by DHS as a water treatment operator in order to get water treatment experience credit. Distribution operators can receive general experience credit without being certified operators if they are working as a distribution operator at a water system that has been classified as a distribution system.

II. Water Treatment Experience Requirements

Grade Level	Experience Criteria for Treatment Certification (Section 63800)
T1	No experience is required.
T2	No experience is required.
T3	<ol style="list-style-type: none"> 1. (Specific Experience) 1 year of operator experience working as a certified T2 operator for a T2 facility or higher (may be substituted with (C) below) 2. (General Experience) 1 additional year of operator experience working as a certified treatment operator (may be substituted with (A), (B), or (D) below)
T4	<ol style="list-style-type: none"> 1. (Specific Experience) 1 year of operator experience working as a Chief or Shift operator, while holding a valid T3 certificate, at a T3 facility or higher (may be substituted with (C) below) 2. (General Experience) 3 additional years of operator experience working as a certified treatment operator (may be substituted with (A) or (D) below)
T5	<ol style="list-style-type: none"> 1. (Specific Experience) 2 years of operator experience working as a Chief or Shift operator, while holding a valid T4 certificate, at a T4 facility or higher (no substitutions) 2. (General Experience) 3 additional years of operator experience working as a certified treatment operator (may be substituted with (A) or (D) below)

Experience Substitutions for Certification, as referenced above:

- (A) A degree earned at an accredited academic institution may be substituted as follows:
- An **Associate degree** or **certificate** in water or wastewater technology that includes at least 15 units of physical, chemical, or biological science may be used to fulfill 1 year of operator experience (section 63800(f)(1)).
 - A **Bachelors degree** in engineering or in physical, chemical, or biological sciences may be used to fulfill 1.5 years of operator experience (section 63800(f)(2)).
 - A **Masters degree** in engineering or in physical, chemical, or biological sciences may be used to fulfill 2 years of operator experience (section 63800(f)(3)).
- (B) A certified operator may substitute on a day-for-day basis experience gained while working with lead responsibility for water quality related projects or research (section 63800(g)).
- (C) If the applicant has a bachelor of science or a master of science degree, completion of a comprehensive operator training program pursuant to section 63800(h) may be substituted for the experience requirement.
- (D) Experience gained as a certified waste water treatment plant operator may be used to substitute up to two years of the operator experience requirements. Each two months of experience as a waste water treatment plant operator shall be considered equivalent to one month of water treatment facility operator experience (section 63800(i)).

III Water Distribution Experience Requirements

Grade Level	Experience Criteria for Distribution Certification (Section 63805)
D1	No experience is required.
D2	No experience is required.
D3	<ol style="list-style-type: none"> 1. (Specific Experience) 1 year of operator experience working as a certified D2, interim D3 or higher, or temporary D3 operator for a D2 system or higher (no substitutions) 2. (General Experience) 1 additional year of operator experience working as a distribution operator (may be substituted with (A) or (B) below)
D4	<ol style="list-style-type: none"> 1. (Specific Experience) 1 year of operator experience working as a certified D3, interim D4 or higher, or temporary D4 operator, at a D3 system or higher (no substitutions) 2. (General Experience) 3 additional years of operator experience working as a distribution operator (may be partially substituted with (A) below)
D5	<ol style="list-style-type: none"> 1. (Specific Experience) 2 years of operator experience working as a certified D4, interim D5, or temporary D5 operator for a D4 or D5 system 2. (General Experience) 3 additional years of operator experience working as a distribution operator (may be partially substituted with (A) below)

Experience Substitutions for Certification, as referenced above:

- (A) A degree earned at an accredited academic institution may be substituted as follows:
- An **Associate degree** or **certificate** in water or wastewater technology or distribution that includes at least 15 units of physical, chemical, or biological science may be used to fulfill 1 year of operator experience (section 63805(f)(1)).
 - A **Bachelors degree** in engineering or in physical, chemical, or biological sciences may be used to fulfill 1.5 years of operator experience (section 63805(f)(2)).
 - A **Masters degree** in engineering or physical, chemical, or biological sciences may be used to fulfill 2 years of operator experience (section 63805(f)(3)).
- (B) A certified operator may substitute on a day-for-day basis the experience gained while working with lead responsibility for water quality or quantity related projects or research (section 63805(g)).

IV. Experience Guidelines

1. The procedure for becoming certified is now a two-step process, applying for the exam and applying for certification. The exam requirements are based on education and the certification requirements are based on experience. This means that experience is no longer a requirement to take the exams. If an operator passes an exam he/she will be sent a certification application. The operator has three years in which to meet the experience requirements and return the application to become certified. If the requirements cannot be met within three years the operator would have to retake the exam.
2. Operator experience is defined as the daily performance of activities consisting of the control or oversight of any process or operation at a water treatment facility or in a distribution system that may affect the quality or quantity of water. The processes and operations referred to in this definition are those that require a certified operator to perform under the regulations. In general, experience credit is only given if a certified operator is required to perform the duties or activities. Duties or positions that do not require a certified operator according to the regulations will not earn experience credit.
 - a) Maintenance mechanics or electrical technicians who solely calibrate and repair equipment are not required to be certified to perform those duties so no experience credit is earned.
 - b) Designing or building a water treatment facility or distribution system does not require certification so no experience credit is earned.
 - c) Meter readers and customer service representatives who only record and convey information are not affecting the quality or quantity of water. If their position requires them to make decisions based on the information they gather and they are certified operators they would get experience credit. Otherwise they would not.
 - d) Laboratory technicians that analyze water samples are not required to be certified so no experience credit is given. Analysis done by a certified operator at the treatment facility or distribution system that provides information required to make a decision is acceptable experience.
 - e) If an employees' only duty is collecting water samples then no experience credit is earned performing that activity because certification is not required for sampling.
3. Operator certification for positions of responsibility above the "Chief Operator" (i.e.; Water Superintendent or Treatment/Distribution Manager) is required only if the supervisor of the "Chief Operator" participates in water treatment and/or water distribution decisions that directly affect water quality and/or quantity. Positions higher than the Chief Operator do not qualify as operator experience solely based on supervising a "Chief Operator" or holding a higher position. Actual operator experience to meet certification requirements for managers or supervisors are the same as other operators and are defined in Section 63750.65. Operator Experience; Section 63750.70. Shift Operator; and Section 63750.25. Chief Operator.

4. Previous experience gained before the new regulation went into effect can count toward the experience requirements. When the water treatment facility or distribution system is classified this year under the new regulations the classification will be retroactive for the purpose of experience credit. Example - Five years experience at a distribution system classified this year as a D5 system will be worth 5 years of D5 experience.
5. The regulations require that all water treatment operators be certified, (Section 63765 (b)), so no experience credit is given for work performed as an uncertified operator. An exception is made for “operators in training”. Individuals who received experience credit as an “operator in training” under the old regulations can still use that experience for the purposes of certification.
6. Uncertified distribution operators can earn experience while working on a distribution system. The regulations require distribution operators to be certified only if they make decisions regarding operational activities that may affect the quality or quantity of water. Uncertified operators may gain distribution experience while performing tasks necessary to carry out these decisions if these duties are directly related to the operation of a distribution system.
7. Experience gained at a water treatment facility or distribution system in another state may count as operator experience.
8. Experience credit is not given for “on call” duty.
9. Operators that received their DHS distribution certificate upgrade through their CA-NV-AWWA certificate will receive experience credit for the grade of certificate they received from DHS. For example, any distribution experience earned as a CA-NV-AWWA Grade 2 operator prior to the upgrade will be considered D3 experience for the purposes of certification.
10. An operator can get experience credit for both water treatment and distribution according to the following table.

	Water Treatment only (A)	Water Treatment and Distribution (B)
Responsibilities are:	Only has responsibility for water treatment. Even though performs some duties listed in (c) and (d) all of these duties are performed within the treatment facility. Does not perform duties listed in Section 63770, (b).	Primary responsibility is water treatment but also has some distribution responsibility according to Section 63770, (b)
Experience counted each week:	Maximum 40 hrs for water treatment, none for distribution	Maximum 40 hrs for water treatment, 20 hrs for distribution

	Distribution only (C)	Distribution and Water Treatment (D)
Responsibilities are:	Only responsibility is distribution. Duties do not require a treatment certification	Primary responsibility is distribution according to Section 63770, (b) but also has some water treatment responsibility.
Experience counted each week:	Maximum 40 hrs for distribution, none for water treatment	Maximum 40 hrs for distribution, 20 hrs for treatment

	Distribution and Water Treatment (E)
Responsibilities are:	Primarily responsible for water treatment and distribution. Duties performed require both a water treatment and distribution certificate.
Experience counted each week:	Maximum 40 hrs for distribution and for water treatment

Criteria for Operator A:

Operator is certified as a water treatment operator,
 Job description identifies position as a water treatment operator,
 Duties or responsibilities listed are those of a water treatment operator,
 Operator could perform all the duties listed on the job description without requiring a distribution certificate.

Criteria for Operator B:

Operator is certified as a water treatment and distribution operator,
 Job description identifies position as a water treatment operator,
 Duties or responsibilities listed are those of a water treatment operator and distribution operator.
 Some duties under Section 63770(b) are included such that the operator must be certified as a distribution operator in order to perform those duties.

Criteria for Operator C:

Job description identifies position as a distribution operator,
 Operators' position does not require a certified water treatment operator based on the duties or responsibilities listed in the job description.

Criteria for Operator D:

Operator is certified as a water treatment and distribution operator,
 Job description identifies position as both water treatment and distribution operator,
 Some duties under Section 63770(b) are included such that the operator must be certified as a distribution operator in order to perform those duties.

Criteria for Operator E:

Operator is certified as a water treatment and distribution operator,

Job description identifies position as having equal responsibility for both water treatment and distribution.

Position is a Shift or Chief operator that requires certification in both water treatment and distribution.

Duties or responsibilities listed are those of a water treatment operator and distribution operator.

Some duties under Section 63770(b) are included such that the operator must be certified as a distribution operator in order to perform those duties.

V. Experience Substitutions

There are four types of experience substitutions allowed for the water treatment and distribution experience requirements.

- College Degree.
- Lead responsibility for water quality or quantity related projects or research.
- Completion of a comprehensive operator training program.
- Experience gained as a certified wastewater treatment plant operator.

1. **College Degree** - Applies to both water treatment and distribution general experience requirement but not the specific experience requirement.

- (a). The degree or certificate must be from an accredited academic institution.
- (b). The amount of experience credit varies with the type of degree. An Associates degree or certificate in water or wastewater technology is worth 1 year of experience credit. The degree or certificate must contain at least 15 units in physical, chemical, or biological sciences. A Bachelors degree in engineering or in physical, chemical, or biological sciences may be used to fulfill 1.5 years of general operator experience. A Masters degree in engineering or in physical, chemical, or biological sciences may be used to fulfill 2 years of operator experience.
- (c). An operator who holds more than one college degree can only claim experience for one of those degrees. Typically an individual who holds a Masters degree will also hold a Bachelors degree. That individual can claim up to 2 years experience credit for the Masters degree but cannot claim 3.5 years experience for both.
- (d). The bachelor or masters degree must be in either engineering or a physical, chemical, or biological science. The associate degree or certificate must be in water or wastewater technology.

2. **Lead responsibility for water quality or quantity related projects or research.** - Applies to both water treatment and distribution general experience but not the specific experience requirement.

- (a). A certified operator may substitute on a day-for-day basis the general experience requirements for T3 or D3 certification with experience gained while working with lead responsibility for water quality or quantity related projects or research. This substitution does not apply to grade 4 or 5 certificates and will be evaluated on a case-by-case basis.
3. **Completion of a comprehensive operator-training program.** - Applies only to the T3 and T4 specific experience requirements.
- (a). This substitution is only valid for the T3 and T4 specific experience requirement listed in Section 63800 (c) (1), and (d) (1) of the regulations.
 - (b). The applicant must first hold a bachelor of science or master of science degree in order to claim this experience credit.
 - (c). The comprehensive operator training program must be at least 6 months in duration and can consist of both classroom instruction and hands-on training.
 - (d). The chief operator must verify completion of the training in writing.
 - (e). The training program shall cover the following elements:
 - (1) California Safe Drinking Water Act and regulations promulgated pursuant thereto.
 - (2) Water treatment calculations.
 - (3) SCADA operation.
 - (4) Handling of laboratory chemicals used for drinking water analyses.
 - (5) Laboratory analyses conducted by operators.
 - (6) Safety training.
 - (7) Distribution system operation.
 - (8) Treatment chemical dosing and monitoring.
 - (9) Disinfectant dosing and monitoring.
 - (10) Treatment processes and controls.
 - (f). Comprehensive operator training programs will be evaluated on a case-by-case basis.
4. **Experience gained as a certified wastewater treatment plant operator.** – Applies only to water treatment T3 – T5 general experience requirements and only to operators holding a California wastewater certificate.
- (a). Experience as a California certified wastewater operator can be used to fulfill up to two years of general water treatment experience.

- (b). Credit is given on a 2 for 1 basis. Two months of wastewater experience is worth one month of water treatment experience.

VI. Related Regulation Language and Definitions (for Reference)

Section 63750.65. Operator Experience.

“Operator experience” means the daily performance of activities consisting of the control or oversight of any process or operation at a water treatment facility or in a distribution system that may affect the quality or quantity of water.

Section 63750.70. Shift Operator.

“Shift operator” means a person in direct charge of the operation of a water treatment facility or distribution system for a specified period of the day.

Section 63750.25. Chief Operator.

“Chief operator” means the person who has overall responsibility for the day-to-day, hands-on, operation of a water treatment facility or the person who has overall responsibility for the day-to-day, hands-on, operation of a distribution system.

ARTICLE 4. Operator Certification Criteria and Applications

Section 63800. Eligibility Criteria for Water Treatment Operator Certification.

- (a) In order to be eligible for certification as a T1 operator, an applicant shall have passed a Grade T1 operator examination within the three years prior to submitting the application for certification.
- (b) In order to be eligible for certification as a T2 operator, an applicant shall have passed a Grade T2 or T3 operator certificate examination within the three years prior to submitting the application for certification.
- (c) In order to be eligible for certification as a T3 operator, an applicant shall have passed a Grade T3 operator examination within the three years prior to submitting the application for certification, and shall have completed the following:
 - (1) At least one year of operator experience working as a certified T2 operator for a T2 facility or higher, or a facility that, prior to January 1, 2001, would have met the criteria for classification as a T2 facility or higher pursuant to section 64413.1.
 - (2) At least one additional year of operator experience working as a certified treatment operator.

- (d) In order to be eligible for certification as a T4 operator, an applicant shall have passed a Grade T4 operator examination within the three years prior to submitting the application for certification, and shall have completed the following:
 - (1) At least one year of operator experience working as a shift or chief operator, while holding a valid T3 operator certificate, at a T3 facility or higher, or a facility that, prior to January 1, 2001, would have met the criteria for classification as a T3 facility or higher pursuant to section 64413.1, and
 - (2) At least three additional years of operator experience working as a certified treatment operator.
- (e) In order to be eligible for certification as a T5 operator, an applicant shall have passed a Grade T5 operator examination within the three years prior to submitting the application for certification, and shall have completed the following:
 - (1) At least two years of operator experience working as a shift or chief operator, while holding a valid T4 operator certificate, at a T4 facility or higher, or a facility that, prior to January 1, 2001, would have met the criteria for classification as a T4 facility or higher pursuant to section 64413.1, and
 - (2) At least three additional years of operator experience working as a certified treatment operator.
- (f) A degree earned at an accredited academic institution may be used to fulfill experience requirements in (c)(2), (d)(2), and (e)(2) as follows:
 - (1) An Associate degree or certificate in water or wastewater technology that includes at least 15 units of physical, chemical, or biological science may be used to fulfill 1 year of operator experience.
 - (2) A Bachelors degree in engineering or in physical, chemical, or biological sciences may be used to fulfill 1.5 years of operator experience.
 - (3) A Masters degree in engineering or in physical, chemical, or biological sciences may be used to fulfill 2 years of operator experience.
- (g) A certified operator may substitute on a day-for-day basis the experience requirements in (c)(2) with experience gained while working with lead responsibility for water quality related projects or research.
- (h) If the applicant has a bachelor of science or a master of science degree, completion of a comprehensive operator training program may be used to fulfill the operator experience requirements in (c)(1) and (d)(1). Completion of the training shall be verified in writing by the chief operator. The comprehensive operator training program shall be at least 6 months in duration and shall cover the following elements:
 - (1) California Safe Drinking Water Act and regulations promulgated pursuant thereto.
 - (2) Water treatment calculations.

- (3) SCADA operation.
 - (4) Handling of laboratory chemicals used for drinking water analyses.
 - (5) Laboratory analyses conducted by operators.
 - (6) Safety training.
 - (7) Distribution system operation.
 - (8) Treatment chemical dosing and monitoring.
 - (9) Disinfectant dosing and monitoring.
 - (10) Treatment processes and controls.
- (i) Experience gained as a certified waste water treatment plant operator, pursuant to California Water Code sections 13625 through 13633, may be used to fulfill up to two years of the operator experience requirements in (c)(2), (d)(2), and (e)(2). Each two months of experience as a waste water treatment plant operator shall be considered equivalent to one month of water treatment facility operator experience.

Section 63805. Eligibility Criteria for Distribution Operator Certification.

- (a) In order to be eligible for certification as a D1 operator, an applicant shall have passed a Grade D1 operator examination within the three years prior to submitting the application for certification.
- (b) In order to be eligible for certification as a D2 operator, an applicant shall have passed a Grade D2 operator examination within the three years prior to submitting the application for certification.
- (c) In order to be eligible for certification as a D3 operator, an applicant shall have passed a Grade D3 operator examination within the three years prior to submitting the application for certification, and shall have completed the following:
 - (1) At least one year of operator experience working as a certified D2 operator, interim D3 or higher operator, or temporary D3 operator for a D2 system or higher, or a system that, prior to January 1, 2001, would have met the criteria for classification as a D2 system or higher pursuant to section 64413.3.
 - (2) At least one additional year of operator experience working as a distribution operator.
- (d) In order to be eligible for certification as a D4 operator, an applicant shall have passed a Grade D4 operator examination within the three years prior to submitting the application for certification, and shall have completed the following:

- (1) At least one year of operator experience working as a certified D3, interim D4 or higher operator, or temporary D4 operator for a D3 system or higher, or a system that, prior to January 1, 2001, would have met the criteria for classification as a D3 facility or higher pursuant to section 64413.3, and
 - (2) At least three additional years of operator experience working as a distribution operator.
- (e) In order to be eligible for certification as a D5 operator, an applicant shall have passed a Grade D5 operator examination within the three years prior to submitting the application for certification, and shall have completed the following:
 - (1) At least two years of operator experience working as a certified D4, interim D5 operator, or temporary D5 operator for a D4 or D5 system, or a system that, prior to January 1, 2001, would have met the criteria for classification as a D4 or D5 system pursuant to section 64413.3, and
 - (2) At least three additional years of operator experience working as a distribution operator.
- (f) A degree earned at an accredited academic institution may be used to fulfill experience requirements in (c)(2), (d)(2), and (e)(2) as follows:
 - (1) An Associate degree or certificate in water or wastewater technology or distribution that includes at least 15 units of physical, chemical, or biological science may be used to fulfill 1 year of operator experience.
 - (2) A Bachelors degree in engineering or in physical, chemical, or biological sciences may be used to fulfill 1.5 years of operator experience.
 - (3) A Masters degree in engineering or in physical, chemical, or biological sciences may be used to fulfill 2 years of operator experience.
- (g) A certified operator may substitute on a day-for-day basis the experience requirements in (c)(2) with experience gained while working with lead responsibility for water quality or quantity related projects or research.

Section 63770. Distribution System Staff Certification Requirements.

- (a) Chief and shift operators shall possess valid operator certificates pursuant to Table 63770-A.

TABLE 63770-A – Minimum Certification Requirements for Chief and Shift Operators

Distribution System Classification	Minimum Certification of Chief Operator	Minimum Certification of Shift Operator
D1	D1	D1
D2	D2	D1
D3	D3	D2
D4	D4	D3
D5	D5	D3

- (b) Water systems shall utilize only certified distribution operators to make decisions addressing the following operational activities:
- (1) Install, tap, re-line, disinfect, test and connect water mains and appurtenances.
 - (2) Shutdown, repair, disinfect and test broken water mains.
 - (3) Oversee the flushing, cleaning, and pigging of existing water mains.
 - (4) Pull, reset, rehabilitate, disinfect and test domestic water wells.
 - (5) Stand-by emergency response duties for after hours distribution system operational emergencies.
 - (6) Drain, clean, disinfect, and maintain distribution reservoirs.
- (c) Water systems shall utilize either certified distribution operators or treatment operators that have been trained to make decisions addressing the following operational activities:
- (1) Operate pumps and related flow and pressure control and storage facilities manually or by using a system control and data acquisition (SCADA) system.
 - (2) Maintain and/or adjust system flow and pressure requirements, control flows to meet consumer demands including fire flow demands and minimum pressure requirements.
- (d) Water systems shall utilize either certified distribution operators or treatment operators to make decisions addressing the following operational activities:
- (1) Determine and control proper chemical dosage rates for wellhead disinfection and distribution residual maintenance.
 - (2) Investigate water quality problems in the distribution system.